

IN THE CLAIMS

The following is a listing of the claims of the present application:

1. (Currently Amended) An amplifier, comprising:  
a first amplifying stage comprising a common-base transistor;  
a second amplifying stage, coupled to the first amplifying stage, comprising a cascode transistor pair; and  
at least one matching network, coupled to at least one of the first amplifying stage and the second amplifying stage, comprising a series transmission line and a shunt stub.
2. (Original) The amplifier of claim 1, further comprising an input matching network coupled between an input terminal associated with the amplifier and the common-base transistor.
3. (Original) The amplifier of claim 1, further comprising an inter-stage matching network coupled between the common-base transistor and the cascode transistor pair.
4. (Original) The amplifier of claim 1, further comprising an output matching network coupled between an output terminal associated with the amplifier and the cascode transistor pair.
5. (Canceled).
6. (Original) The amplifier of claim 1, wherein the first stage and the second stage are implemented in accordance with a silicon-based technology.
7. (Original) The amplifier of claim 1, wherein the first stage and the second stage are implemented in accordance with a silicon germanium technology.
8. (Original) The amplifier of claim 1, wherein the amplifier is a low-noise amplifier.

9. (Original) The amplifier of claim 8, wherein the low-noise amplifier is implemented in accordance with a millimeter-wave communications receiver.

10. (Original) The amplifier of claim 1, wherein the amplifier is a unilateral amplifier.

11. (Previously Presented) The amplifier of claim 1, wherein a current associated with the second amplifying stage is adjustable.

12. (Previously Presented) Apparatus for amplifying an input signal, comprising:  
a low-noise amplifier operative to amplify the input signal, wherein the low-noise amplifier is implemented in accordance with a silicon-based technology and the input signal is a millimeter-wave signal, and further wherein the low-noise amplifier comprises at least one matching network comprising a series transmission line and a shunt stub.

13. (Original) The apparatus of claim 12, wherein the low-noise amplifier comprises:  
a first amplifying stage comprising a common-base transistor; and  
a second amplifying stage, coupled to the first amplifying stage, comprising a cascode transistor pair.

14. (Previously Presented) The apparatus of claim 13, wherein the at least one matching network is coupled between an input terminal associated with the low-noise amplifier and the common-base transistor.

15. (Previously Presented) The apparatus of claim 13, wherein the at least one matching network is coupled between the common-base transistor and the cascode transistor pair.

16. (Previously Presented) The apparatus of claim 13, wherein the at least one matching network is coupled between an output terminal associated with the low-noise amplifier and the cascode transistor pair.

17. (Canceled).

18. (Original) The apparatus of claim 12, wherein the low-noise amplifier is implemented in accordance with a silicon germanium technology.

19. (Currently Amended) Apparatus for amplifying an input signal, comprising:  
an unilateral low-noise amplifier operative to amplify the input signal, wherein the amplifier is implemented in accordance with a ~~silicon-based~~ silicon germanium technology and comprises at least one matching network comprising a series transmission line and a shunt stub, and wherein the input signal is a millimeter-wave signal.

20. (Currently Amended) A communications receiver, comprising:  
a low-noise amplifier comprising:  
    a first amplifying stage comprising a common-base transistor;  
    a second amplifying stage, coupled to the first amplifying stage, comprising a cascode transistor pair; and  
    at least one matching network, coupled to at least one of the first amplifying stage and the second amplifying stage, comprising a series transmission line and a shunt stub.